



## **Warning to Mariners: Korean coast fish and aquaculture nets**

SEAsia's network partners in Korea are KOSAC/SEAsia Korea, headed up by Capt GC Song. Some of the most intensive and detailed work we have done with Capt Song and his team over the past decade has been in regard to the investigation and control of allision incidents between ships and large stationary but floating fishing nets or seaweed (laver) farms off the Korean coast.

For those of you not familiar with the term "allision", this describes a collision contact between a ship and a floating or other object which is not a ship e.g. a buoy or a jetty. The liability that then arises is normally covered under the Fixed and Floating Object (FFO) terms of a ship owner's P&I insurance cover.

### **Civil and criminal liability**

If a vessel navigating in Korean waters comes into contact with a stationary fishing net, laver farm or other floating aquaculture facility, then it is a certainty that the owners of the facility will immediately contact the Korean Coast Guard. The CG have access to both VTS and AIS data and they will very quickly establish the identity of the vessel involved. If the vessel is still inside Korean waters, then the vessel will be stopped and detained to facilitate immediate investigation.

The primary purpose of the Korean CG investigation is to establish whether the vessel involved came into contact with the facility due to negligence on the part of the crew or due to an intentional act. The CG's role is not to determine the scope of the damage and the losses suffered. If the CG establish that the contact was due to crew negligence, then they will close their file as the contact damage and compensation aspects are considered to be a civil law matter. If the contact was deemed to be intentional – very rare of course – then it is considered to be a criminal act and a penalty or fine will be levied against the vessel and the owner.

### **Damage to floating stationary fishing nets off Yeosu (March to December)**

Between March to November each year, stationary nets are moored in water depths of 5 m to 30 m for seasonal fishing of anchovy, yellow tail and mackerel. The nets are normally lifted twice each day, at slack tide. Smaller nets will usually be tended by two fishing vessels. Larger nets, up to 400 m long and 200 m wide, will usually require three fishing vessels with a total crew count of up to 50 fishermen to handle them.

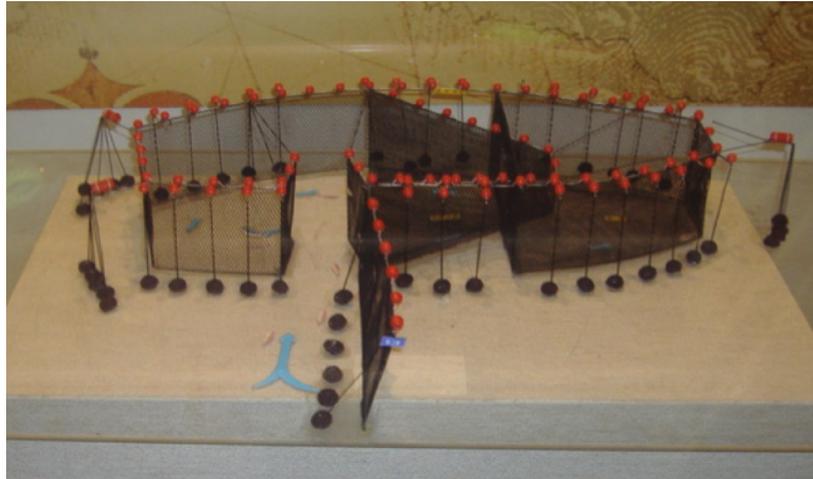


Photo 1. Model of a stationary fishing net showing construction, buoying and anchors.

The buoyed and anchored stationary net construction is quite complex, as can be seen from the net model at photo 1. It can therefore be expected that if a vessel strikes a net, the repairs required will be extensive, costly and time consuming with resultant loss of fishing income.

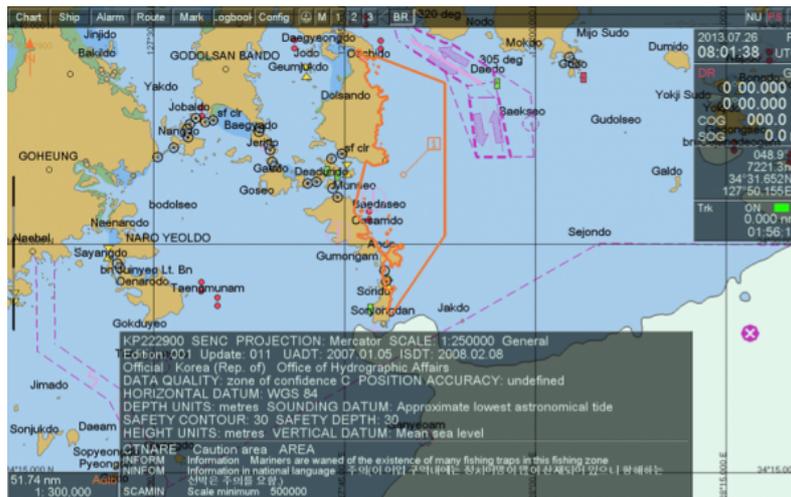


Photo 2. Chart extract showing the stationary fishing net area (orange border line) and the nearby vessel traffic zone.

The relevant area in which stationary nets are deployed off Yeosu is bordered with an orange line and shown in the attached chart extract at photo 2. It will be seen that to the top and right of the area bordered by the orange line area lies a vessel traffic zone shown in magenta (purple). The relatively close proximity of the fishing net area and the traffic zone can give rise to the risk of ship contact with stationary fishing nets if ships do not stay inside the zone. Further, ships having left the traffic zone and ships inbound, towards the traffic zone, have also incorrectly set their courses to pass inside the orange line net deployment area and have come to grief because of it.

SEAsia Korea have had to deal with no less than five ship and stationary fishing net incidents in the above area over the past few years and all of them, even after insisting that claimants mitigate their losses, have proved to be costly.

### **Damage to floating stationary laver culture facilities (September to May)**

Laver (seaweed) cultivation takes place from September through to May of the following year. The standard unit for laver cultivation is known as a “chaek” which is 40 m in length. However, a laver facility can extend up to the equivalent of three chaeks in length (120 m), dependent upon the equipment and resources available to the local village responsible for its care and harvesting.



*Photo 3. A typical laver net Chaek showing buoying, and netting.*

Photo 3. shows a typical laver facility with multiple rows of nets, buoys, rope connections and pillars which secure the nets to the sea bottom. The laver seed is implanted in September and harvesting then takes place every 20-30 days through to May. Once the last harvest is completed, the laver nets are dismantled and brought ashore for winter storage and maintenance.

If ship contact damage to laver nets is suffered during the harvest season, it may not be possible for the nets to be repaired and re-set within the current season unless it has occurred during the first few months. If not, then claims for loss of income would therefore extend to the end of the relevant season and can be very high.

In a recent laver contact damage case handled by SEAsia Korea, it was discovered that the laver nets had not been deployed in the correct licensed position. The error was due to a GPS position plotting error made by the laver facility operators. This occurred due to a discrepancy in the GPS datum between Tokyo datum and WGS 84 datum.

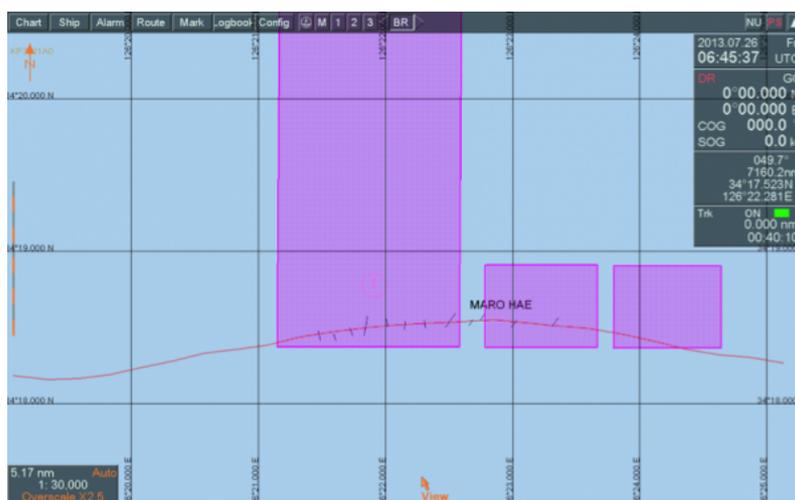


Photo 4. Showing the alleged laver net positions by reference to Tokyo GPS datum and the ship's track in red.

SEAsia Korea utilized this finding (which showed that the vessel had only just grazed along the southern edge the net zone at a single point) to help defend the shipowner and their P&I Club against a claim for over USD 360,000.00. Photo 4 shows the position of the nets and the vessels track according to the claimants. Photo 5 shows the same scenario with the GPS datum as corrected by SEAsia Korea. The end result was that the laver net damage final settlement was reduced to only 30% of the claimed amount.

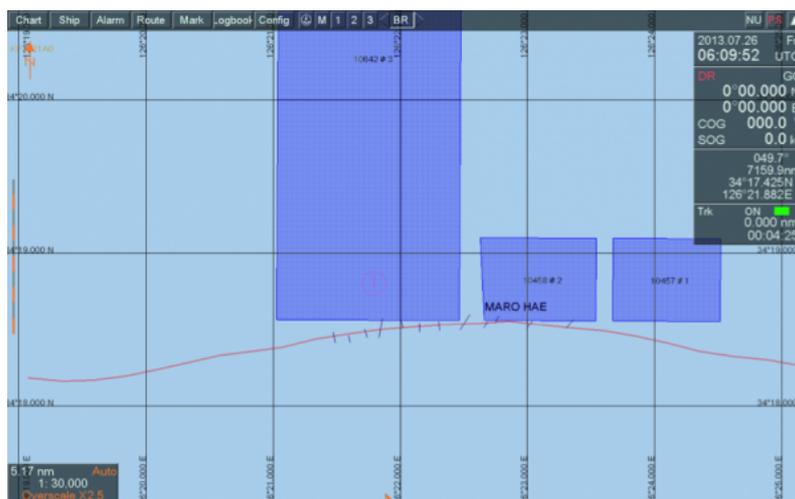


Photo 5. Showing the actual laver net positions after GPS conversion to WGS 84 datum and the same ship's track.

## Loss prevention and control advice

1. It is essential that ship owners and managers ensure that their Masters are made fully aware of the dangers posed by stationary net fishing (March to December) and laver net aquaculture (September to May) which take place off Korea's Yeosu coast each year. Warning: the current Korean provincial regulations do not make mandatory the fitting of either lights or radar reflectors to stationary nets or laver farms. Some stationary nets are fitted with lights but laver nets do not usually fit any lights.
2. Cautions are already posted on charts as well as in Pilot Books but the evidence is that Passage Planning is not being properly accomplished in accordance with both the SOLAS and SCTW Conventions [see IMO Res A.893 (21)]. An error made at this stage could prove to be very expensive in terms of both damage settlement and lost time to the vessel.
3. Bearing in mind the room for error (up to 400 m) in relation to the incorrect GPS positioning of fishing and laver nets due to the difference between Tokyo and WSG84 datum, it is suggested that vessels should not pass closer than 1 n mile (1852 m) to the charted or posted position of any net located off the Korean coast.
4. VDR data should be saved (for say 30 days), as a routine precaution, for all transits of the Yeosu coastal area off Korea. If a claim is then brought against the vessel for net or other damage which is alleged to have occurred during the vessel's transit dates and times, then the vessel will have its own objective and detailed evidence available to refute or defend such claims. If an incident occurs during transit, then the VDR data must be saved and specialist/manufacture's assistance may be required to accomplish both saving and effective downloading
5. Call SEAsia to assist you and your vessel if a contact incident occurs. We will quickly assess the situation, confirm instructions with your P&I Club and then immediately mobilise expert surveyors from KOSAC/SEAsia Korea to site. We will investigate, obtain and preserve evidence, advise and ensure the best possible defence outcome for the shipowner and their P&I Club.